



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. ....09/227,568  
 Filing Date .....1/08/99  
 Inventorship..... England  
 Applicant..... Microsoft Corporation  
 Group Art Unit .....2134  
 Examiner ..... Callahan, Paul E.  
 Attorney's Docket No. ....MS1-282USC3  
 Title: Key-Based Secure Storage

**PETITION TO WITHDRAW HOLDING OF ABANDONMENT UNDER 37**  
**CFR 1.181**

To: Commissioner of Patents and Trademarks  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

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FEB 06 2004

Technology Center 2100

From: Nathan R. Rieth (Tel. 509-324-9256; Fax 509-323-8979)  
 Customer No. 22801

Applicant received a Notice of Abandonment from the Office dated 01/13/2004. The Office indicates in the Notice that Applicant failed to timely file a proper reply to the Office letter mailed on 6/18/2004. Applicant respectfully requests the Commissioner to withdraw the holding of abandonment on the basis that Applicant did timely file a proper reply to the Office letter mailed on 6/18/2004.

Applicant submits herewith as evidence of such reply, an "Auto-Reply Facsimile Transmission" document dated 07/30/2003. The "Auto-Reply Facsimile Transmission" document includes a copy of Applicant's Certificate of Transmission under 37 CFR 1.8, which indicates a Fee Transmittal and Response to Office Action dated 6/18/03 were transmitted with the Certificate.

1 Applicant further submits herewith, copies of the Certificate of Transmission  
2 under 37 CFR 1.8, the Fee Transmittal, and the Response To Office Action, each of  
3 which was filed on 7/30/2003.

4 We believe that no petition fee is necessary in this case.  
5  
6

7 Respectfully Submitted,  
8  
9

10 Dated: 02/03/04

By: Nathan R. Rieth

11 Nathan R. Rieth  
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1                   **IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

2   Application Serial No. ....09/227,568  
3   Filing Date .....1/08/99  
4   Inventorship.....England  
5   Applicant.....Microsoft Corporation  
6   Group Art Unit .....2134  
7   Examiner .....Callahan, Paul E.  
8   Attorney's Docket No. ....MS1-282USC3  
9   Title: Key-Based Secure Storage

10                   **RESPONSE TO OFFICE ACTION DATED JUNE 18, 2003**

11   To:           Commissioner of Patents and Trademarks  
12               Washington, D.C. 20231

13   From:       Nathan R. Rieth (Tel. 509-324-9256; Fax 509-323-8979)  
14               Lee & Hayes, PLLC  
15               421 W. Riverside Avenue, Suite 500  
16               Spokane, WA 99201

## INTRODUCTORY COMMENTS

1  
2 This communication is in response to the Office Action dated June 18,  
3 2003. Please amend the above-identified application in accordance with the  
4 directions set forth below. The format of this communication is in accordance  
5 with the Pre-OG press release titled "Amendments in a Revised Format Now  
6 Permitted" ("Revised Amendment Format"), as set forth in the News and Notices  
7 section of the official website of the United States Patent and Trademark Office  
8 (PTO).  
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2  
3 **AMENDMENTS TO THE CLAIMS**

4 Please amend the claims of the present application as set forth below. In  
5 accordance with the PTO's revised amendment format, a detailed listing of all  
6 claims is provided. A status identifier is provided for each claim in a parenthetical  
7 expression following each claim number. Changes to the claims are shown by  
8 strikethrough (for deleted matter) or underlining (for added matter).

9 Claims 3, 4, 6-12, 15-22 and 25-30 were pending at the time of the Office  
10 Action.

11 Claims 3, 4, 6-12, 15-22 and 25 are expressly allowed.

12 Claims 26 and 28-30 are rejected.

13 Claim 27 is objected to.

14 Claims 27-30 are amended by the current response.

15 Claim 26 is canceled by the current response.

16 Accordingly, claims 3, 4, 6-12, 15-22, 25 and 27-30 remain pending.

17  
18 1. (Previously Canceled)

19  
20 2. (Previously Canceled)

21 3. (Previously Amended) A computerized method for key-based  
22 secure storage comprising:

23 downloading information and an access predicate that specifies  
24 requirements for an application to access the information;

25 generating a seed value;

1 producing a hash seed value based on the seed value using a one-way hash  
2 function;

3 generating an application storage key from the hash seed value;  
4 encrypting the information using the application storage key; and  
5 associating the access predicate with the encrypted information.  
6

7 4. (Previously Amended) A computerized method for key-based  
8 secure storage comprising:

9 downloading information and an access predicate that specifies  
10 requirements for an application to access the information;

11 generating a seed value;

12 producing a first hash seed value based on the seed value using a one-way  
13 hash function;

14 producing a second hash seed value based on the seed value and a user  
15 identifier using a keyed hash function;

16 generating a user storage key from the second hash seed value;

17 encrypting the information using the user storage key; and

18 associating the access predicate with the encrypted information.  
19

20 5. (Previously Canceled)  
21

22 6. (Previously Amended) A computerized method for key-based  
23 secure storage comprising:

24 downloading information and an access predicate that specifies  
25 requirements for an application to access the information;

1 obtaining a storage key;  
2 encrypting the information using the storage key;  
3 associating the access predicate with the encrypted information;  
4 obtaining an operating system storage key;  
5 encrypting the access predicate with the operating system storage key; and  
6 encrypting a plurality of other storage keys using the operating system  
7 storage key, wherein the other storage keys are selected from the group consisting  
8 of application storage keys and user storage keys.

9  
10 7. (Previously Amended) A computerized method for key-based  
11 secure storage comprising:

12 downloading information and an access predicate that specifies  
13 requirements for an application to access the information;

14 obtaining a storage key;

15 encrypting the information using the storage key;

16 associating the access predicate with the encrypted information;

17 generating a seed value;

18 generating an operating system storage key based on the seed value; and

19 encrypting the access predicate with the operating system storage key.

20  
21 8. (Previously Amended) A computerized method for key-based  
22 secure storage comprising:

23 downloading information and an access predicate that specifies  
24 requirements for an application to access the information;

25 generating a seed value for the application;

1       producing an application hash seed value based on the seed value for the  
2 application using an application-specific one-way hash function;  
3       generating an application storage key from the application hash seed value;  
4       generating a seed value for a user;  
5       producing a first user hash seed value based on the seed value for the user  
6 using a one-way hash function;  
7       producing a second user hash seed value based on the first user hash seed  
8 value and a user identifier using a keyed hash function;  
9       generating a user storage key from the second user hash seed value, the  
10 application storage key and the user storage key to encrypt information containing  
11 a portion specific to an application and a portion specific to the user;  
12       encrypting the information using the application storage key and the user  
13 storage key; and  
14       associating the access predicate with the encrypted information.

15  
16       9.     (Previously Amended)     A computerized method for key-based  
17 secure storage comprising:

18       downloading information and an access predicate that specifies  
19 requirements for an application to access the information;  
20       obtaining a storage key;  
21       encrypting the information using the storage key;  
22       associating the access predicate with the encrypted information;  
23       storing the storage key in a key vault provided by a third-party; and  
24       recovering the storage key from the key vault.  
25



1           10. (Original) The computerized method of claim 9, wherein  
2 recovering the storage key comprises:

3           requesting recovery of the storage key; and

4           providing information to the third-party to enable validation of the request.

5  
6           11. (Previously Amended) The computerized method of claim 9,  
7 further comprising:

8           selecting the key vault from a plurality of key vaults provided by a trusted  
9 operating system.

10  
11           12. (Previously Amended) The computerized method of claim 9,  
12 further comprising:

13           selecting the key vault designated by a provider of the information.

14  
15           13. (Previously Canceled)

16  
17           14. (Previously Canceled)

18  
19           15. (Previously Amended) A computer system comprising:  
20 a processing unit;  
21 a system memory coupled to the processing unit through a system bus;  
22 a computer-readable medium coupled to the processing unit through a  
23 system bus;  
24 a generate key function executed from the computer-readable medium by  
25 the processing unit, wherein the generate key function causes the processing unit

1 to generate an operating system storage key based on an identity for the operating  
2 system and based on a seed.

3  
4 16. (Previously Amended) A computer system comprising:  
5 a processing unit;  
6 a system memory coupled to the processing unit through a system bus;  
7 a computer-readable medium coupled to the processing unit through a  
8 system bus;  
9 a generate key function executed from the computer-readable medium by  
10 the processing unit, wherein the generate key function causes the processing unit  
11 to generate an operating system storage key based on an identity for the operating  
12 system;  
13 an application specific one-way hash function executed from the  
14 computer-readable medium by the processing unit, wherein the application  
15 specific one-way hash function causes the processing unit to generate an  
16 application storage key from a hashed seed; and  
17 a generate application key function executed from the computer-readable  
18 medium by the processing unit, wherein the generate application key function  
19 causes the processing unit to generate the hashed seed from an application seed.

20  
21 17. (Previously Amended) A computer-system-comprising:  
22 a processing unit;  
23 a system memory coupled to the processing unit through a system bus;  
24 a computer-readable medium coupled to the processing unit through a  
25 system bus;

1 a generate key function executed from the computer-readable medium by  
2 the processing unit, wherein the generate key function causes the processing unit  
3 to generate an operating system storage key based on an identity for the operating  
4 system;

5 a key-hash function executed from the computer-readable medium by the  
6 processing unit, wherein the key-hash function causes the processing unit to  
7 generate a user storage key from a hashed seed and an identity for the user;

8 a one-way hash function executed from the computer-readable medium by  
9 the processing unit, wherein the one-way hash function causes the processing unit  
10 to generate the hashed seed from a previously hashed seed; and

11 a generate user key function executed from the computer-readable medium  
12 by the processing unit, wherein the generate user key function causes the  
13 processing unit to generate the previously hashed seed from a user seed.

14  
15 18. (Previously Amended) A computer system comprising:  
16 a processing unit;  
17 a system memory coupled to the processing unit through a system bus;  
18 a computer-readable medium coupled to the processing unit through a  
19 system bus; and

20 a trusted operating system executed from the computer-readable medium by  
21 the processing unit, wherein the trusted operating system causes the processing  
22 unit to encrypt downloaded information using a storage key based on a seed  
23 value.  
24  
25

1 19. (Previously Amended) The computer system of claim 18,  
2 wherein the trusted operating system further causes the processing unit to encrypt  
3 an access predicate associated with the downloaded information using an  
4 operating system storage key, to encrypt the seed value for the storage key using  
5 the operating system storage key, and to associate the encrypted access predicate  
6 with the encrypted seed value.

7  
8 20. (Previously Amended) The computer system of claim 19,  
9 wherein the trusted operating system further causes the processing unit to validate  
10 each application requesting access to the downloaded information using the access  
11 predicate, and decrypts the seed value for use by a validated application.

12  
13 21. (Previously Amended) The computer system of claim 18,  
14 wherein the storage key used to encrypt the downloaded information is specific to  
15 an application.

16  
17 22. (Previously Amended) The computer system of claim 18,  
18 wherein the storage key used to encrypt the downloaded information is specific to  
19 a user.

20  
21 23. (Previously Canceled)

22  
23 24. (Previously Canceled)  
24  
25

1 25. (Previously Added) A computerized method for key-based secure  
2 storage comprising:

3 downloading information and an access predicate that specifies  
4 requirements for an application to access the information;

5 obtaining a storage key;

6 encrypting the information using the storage key;

7 associating the access predicate with the encrypted information;

8 storing the storage key in a key vault provided by a third-party;

9 recovering the storage key from the key vault; and

10 selecting the key vault from a plurality of key vaults provided by an  
11 authenticated operating system.

12  
13 26. (Currently Canceled)

14  
15 27. (Currently Amended) A computer system comprising:

16 a processing unit;

17 a system memory coupled to the processing unit through a system bus;

18 a computer-readable medium coupled to the processing unit through a  
19 system bus; and

20 an authenticated operating system configured to execute on the processing  
21 unit from the computer-readable medium, the authenticated operating system  
22 causing the processing unit to encrypt downloaded information using a storage key  
23 based on a seed value;

24 ~~The computer system of claim 26, wherein the authenticated operating~~  
25 ~~system further causes the processing unit to encrypt an access predicate associated~~

1 with the downloaded information using an operating system storage key, to  
2 encrypt the seed value for the storage key using the operating system storage key,  
3 and to associate the encrypted access predicate with the encrypted seed value.  
4

5 28. (Currently Amended) The computer system of claim ~~26~~ 27,  
6 wherein the authenticated operating system further causes the processing unit to  
7 validate each application requesting access to the downloaded information using  
8 the access predicate, and decrypts the seed value for use by a validated  
9 application.  
10

11 29. (Currently Amended) The computer system of claim ~~26~~ 27,  
12 wherein the storage key used to encrypt the downloaded information is specific to  
13 an application.  
14

15 30. (Currently Amended) The computer system of claim ~~26~~ 27,  
16 wherein the storage key used to encrypt the downloaded information is specific to  
17 a user.  
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## Auto-Reply Facsimile Transmission



TO: Fax Sender at 509 323 8979  
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Cover  
Page

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JUL 30 2003 1:01:05 FR LEE - MOYES RLL 509 323 8979 TO 17037467239 P.01/16

Approved for use through 10/1/2003 (last date 02/28/03)  
U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22304-1450

Application Number 09/227,568  
Filing Date: Jan 08, 1999

Certificate of Transmission under 37 CFR 1.8

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1. Fee Transmittal  
2. Response to Office Action dated 6/18/03

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<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	09/227,568
	Filing Date	Jan 08, 1999
	First Named Inventor	Lampson
	Group Art Unit	2137
	Examiner Name	CALLAHAN, PAUL E
Total Number of Pages in This Submission	Attorney Docket Number	MS1-282USC3

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) Sheets <input type="checkbox"/> Licensing-related Papers <input checked="" type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Copy of Response previously filed by fax on 7/30/03; return postcard
Remarks		

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Nathan R. Rieth, Reg. No. 44,302
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Date	02/03/04

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I hereby certify that the items listed above as enclosed are being deposited with the U.S. Postal Service as Express Mail, in an envelope addressed to The Commissioner of Patents, Alexandria, VA 22313 on the below-indicated date. The Express Mail No. has also been marked on the listed items. <small>Express Mail No.</small>	
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EL961414195

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 0.00

## Complete if Known

Application Number 09/227,568  
 Filing Date Jan 08, 1999  
 First Named Inventor Lampson  
 Examiner Name CALLAHAN, PAUL E  
 Art Unit 2137  
 Attorney Docket No. MS1-282USC3

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## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

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The Director is authorized to: (check all that apply)

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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$ ) 0.00

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1202 18	2202 9	Claims in excess of 20	
1201 86	2201 43	Independent claims in excess of 3	
1203 290	2203 145	Multiple dependent claim, if not paid	
1204 86	2204 43	**Reissue independent claims over original patent	
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$ ) 0.00

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 0.00

## SUBMITTED BY

Name (Print/Type)	Nathan R. Rieth	Registration No. (Attorney/Agent)	44,302	Telephone	(509) 324-9256
Signature	<i>Nathan R. Rieth</i>	Date	02/03/04		

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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